ECS Configuration Change Request

1. Originator	2. Log Date:	3. CCR #:	4. Rev:	5. Tel:	6. Rm #:	7. Dept.
Cherry Kenney	**12/14/01**	**01-0960**	**—**	301-883-4177	3204D	DEV/SWIT

8. CCR Title: Patch_6A.04_FIREWALL.06 for GSFC, LaRC & NSIDC DAACs Only. Contains code changes to STMGT, INGEST & TOOLKIT subsystems to support FIREWALL .

9. Originator Signature/Date	10. Class	11. Type:	12. Need Date: 14DEC01
Cherry Kenney /s/ 12/14/01	**II**	**CCR**	

13. Office Manager Signature/Date	14. Category of Change:	15. Priority: (If "Emergency" fill in Block 27).
Randall J. Miller /s/ 12/14/01	Initial ECS Baseline Doc.	Emergency

16. Documentation/Drawings Impacted:	17. Schedule Impact:	18. CI(s) Affected:
		STMGT/INGEST/TOOLKIT

19. Release Affected by this Change:	20. Date due to Customer:	21. Estimated Cost:
6A	14DEC01	None - Under 100K

22. Source Reference: ☒**NCR (attach)** ☒**Action Item** ☐**Tech Ref.** ☐**GSFC** ☐**Other:**
30894, 31941, 31856, 31942, , 31417, 31624

23. Problem: (use additional Sheets if necessary)
Patch_6A.04_FIREWALL.06 for GSFC, LaRC & NSIDC is being delivered to support FIREWALL capability The capability is documented in the NCRs listed above in item 22.

24. Proposed Solution: (use additional sheets if necessary)
Deliver Patch_6A.04_FIREWALL.06 . GSFC DAAC Only - Patch_6A.04_FIREWALL.06 configuration changes for tunneling supersedes TE_6A.04_TUNNELING.01.

25. Alternate Solution: (use additional sheets if necessary)
Wait until next s/w release.

26. Consequences if Change(s) are not approved: (use additional sheets if necessary)
Delays in getting fixes to the field, GSFC, LaRC & NSIDC DAACs must delay testing 0f 6A04 with firewall.

27. Justification for Emergency (If Block 15 is "Emergency"):
Corrections are required at GSFC, LaRC & NSIDC DAACs to support operational testing of 6A04 with firewall.

28. Site(s) Affected: ☐EDF ☒PVC ☒VATC ☐EDC ☒ GSFC ☒LaRC ☒NSIDC ☐SMC ☐AK ☐JPL ☐EOC ☐ IDG Test Cell ☐Other

29. Board Comments:	30. Work Assigned To:	31. CCR Closed Date:

32. EDF/SCDV CCB Chair (Sign/Date): **Randall J. Miller /s/ 12/14/01**	**Disposition:** Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB
33. M&O CCB Chair (Sign/Date): **Pamela Johnson /s/ 12/14/01**	**Disposition:** Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ECS
34. ECS CCB Chair (Sign/Date):	**Disposition:** Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ESDIS

ADDITIONAL SHEET

CCR #: **Rev:** **Originator:** Cherry Kenney

Telephone: 301-883-4177 **Office:** 3204D

Title of Change: Patch_6A.04_FIREWALL.06 for GSFC, LaRC & NSIDC DAACs Only. Contains code changes to STMGT, INGEST & TOOLKIT subsystems to support FIREWALL

Actions

ClearCase

Please build the following tar files from the 6A.04 baseline

one tar file with the following Sun packages:

.EcDsStGUI.pkg
.EcDsStRequestManager.pkg
.EcInGUIOPSWS.pkg

one tar file with the following IRIX packages:

.EcDsStArchive.pkg
.EcDsStDatabase.pkg
.EcDsStIngestFtp.pkg
.EcDsStPullMonitor.pkg
.EcInAPCSVR.pkg
.EcInINTFCSVR.pkg

one tar file with the following files:

/ecs/formal/DM/DDICT/src/database/EcDmDbFirewallCfg.ksh
/ecs/formal/DM/DDICT/src/database/EcDmDbFirewallCfg.sql
/ecs/formal/TOOLKIT/src/CSC/update_utcpole.sh
/ecs/formal/TOOLKIT/src/TD/update_leapsec.sh

Please name the tar file PATCH_6A.04_FIREWALL.06

DAAC INSTALL INSTRUCTIONS

1. Get TAR File from SMC distribution.

List of packages:

SGI:
.EcDsStArchive.pkg
.EcDsStIngestFtp.pkg
.EcDsStPullMonitor.pkg
.EcInAPCSVR.pkg
.EcInINTFCSVR.pkg

Sun:
.EcDsStGUI.pkg
.EcDsStRequestManager.pkg
.EcInGUIOPSWS.pkg

2. If you are untarring the file for mutiple modes then untar the file as "cmshared" or change the permissions in the staging area on the file listed below:

cd/<distribution_directory>/<stage_directory>/SGI/CUSTOM/dbms

chmod 744 DSS/EcDsStDbLogin

after you untar the file. Ensure that you update ECS Assist when prompted. Please remember that you must be logged in as "root" when you update ECS Assist.

3. Use E.A.S.I. to perform an automated installation of all eight packages listed in step 1 DO NOT INSTALL THE .EcDsStDatabase.pkg

For information on how to use E.A.S.I. please refer to the 609 CDRL.

4. Two new configuration files have been added to support FIREWALL. The first conf file r is SLCsocks5.conf for the STMGT servers. It will be installed in the /usr/ecs/<MODE>/CUSTOM/cfg directory located on the FTP servers platform. The second conf parameter is clientproxy.conf for INGEST servers. It will be installed in the /usr/ecs/OPS/CUSTOM/cfg located on the INGEST servers platform. THESE TWO NEW CONFIG FILES SHOULD BE EDITED BY THE FIREWALL TEAM ONLY AFTER THE FIREWALL IS INSTALLED AT DAAC

5. The following files /ecs/formal/DM/DDICT/src/database/EcDmDbFirewallCfg.sql and /ecs/formal/DM/DDICT/src/database/EcDmDbFirewallCfg.ksh are for SMC only. SMC should copy the files to the /usr/ecs/<MODE>/CUSTOM/dbms/DMS directory located on the DMS servers platform. SMC SHOULD COPY THE SCRIPTS ONLY AFTER THE FIREWALL INTERFACE IS INSTALLED AT THE SMC.

6. Two TOOLKIT files have been updated to support the FIREWALL interface. The file/ecs/formal/TOOLKIT/src/CSC/update_utcpole.sh should be copied into the /usr/ecs/<MODE>/CUSTOM/TOOLKIT/toolkit/src/CSC directory located on the TOOLKIT platform. The file /ecs/formal/TOOLKIT/src/TD/update_leapsec.sh should be copied into the /usr/ecs/<MODE>/CUSTOM/TOOLKIT/toolkit/src/TD directory located on the TOOLKIT platform. THESE FILES SHOULD BE INSTALLED ONLY AFTER THE FIREWALL IS INSTALLED AT THE DAAC.

Listed below are the tunneling changes included in the delivery. GSFC DAAC, you may skip steps 7 thru 12 if TE_6A.04_TUNNELING.01 has been installed.

7. There are no new database patches that support the tunneling capability.

8. There are new parameters for Ingest and STMGT to support the tunneling capability. The new parameter FTP_TUNNELS must be added to the EcInReqMgr, EcInGUI, Ingest polling servers, EcDsStFtpServer (each instance), EcDsStCacheManagerServer (each instance) and EcDsStPullMonitorServer. Also a new parameter called PortNumber is added to each instance of polling.

9 . Remake your configuration files (Configuration) for each Ingest server on the Polling machines using ECS Assist. (ECS Assist automatically builds each Ingest configuration file.) As you go through each Polling provider's configuration make sure that EMPTY appears as the PortNumber value. For DAAC where tunneling is applicable(GSFC DAAC Only) you should add the appropriate port number for the particular data provider that will transfer its PDRs through the FTP tunnel. For the polling provider that will use the tunnel, set the polling configuration parameter HostName to the local host and set the PortNumber to the local port when configuring polling servers to poll across an FTP tunnel.

The FTP_TUNNELS parameter consists of a host and port number separated by a colon. The host will always be the destination host of the established tunnel. This name will be the user LAN Hostname such as g0acg01.ecs.nasa.gov. The port number portion of the FTP_TUNNELS parameter will be the local port number that represents the source of the tunnel.

The FTP_TUNNELS parameter that is part of the Ingest Request Manager server should be set to the appropriate host/port for which a tunnel has been established. If the FTP_TUNNELS hostname matches the host name entered in the Ingest GUI for the Notify FTP Node then PANs will be sent across the tunnel for that provider.

The FTP_TUNNELS parameter that is part of the Ingest Polling Server primary parameters should be set to the appropriate host/port for which a tunnel has been established. If the FTP_TUNNELS hostname matches the host name entered in the Ingest GUI for the Notify FTP Node then PDRDs will be sent across the tunnel for that provider.

10. Perform a registry patch on the machine that runs the Ingest GUI. The .rgypatch will add the parameter for FTP_TUNNELS that is used for FTP'ing PDRDs for media ingest. For now the default value of "EMPTY" can be used.

11. Since the Ingest configuration polling files needed to be rebuilt, you must use EcCoPopulateRegistry tool to update the registry for each polling instance configuration file that was rebuilt. The registry tool has the following syntax:

Usage: EcCoPopulateRegistry MODE {HostName|ALL} {ConfigFileName|ALL} DbServerName DbUserName DbPassword DbName AttributeTreeName [Buffersize]

12. The EcDsStFtpServer, EcDsStCacheManagerServer and the EcDsStPullMonitor servers also require the FTP_TUNNELS parameter. Use the .rgypatch to populate the registry for these servers. Use the registry GUI to configure the FTP_TUNNELS parameter for the ICL Ftp Server. This server controls the FTP requests supporting Ingest. This parameter must be set to the <host:portNumber> where the host is the remote host destination of the tunnel to the appropriate dataprovider configured in step

5 above with the appropriate port number. Currently the other FTP servers, cache managers and pull monitor server can be run with the default value provided by the registry patch.

13 Restart STMGT & INGEST servers

14 .Make sure the servers are up and running. Check the output logs for any errors.

Landover Test Report

1. In the PVC we have been exercising both the 6A.04 and 6A.05 baseline internally with a firewall in place.

2. A PVC to multi-DAAC test was designed and was performed between the PVC and 3 of the DAACS for FTP Pushes through the FIREWALL with the FIREWALL configured. During this tests FTPs were also routed internal to the PVC. This same test was repeated from the EDF with NO Firewall in place but with the code from the 6A.04 (with firewall) baseline. That test also was completed successfully.

3. A fault recovery set of tests were also run in the EDF and PVC. This included ftp'ing to full directories, supplying a bad user or password. etc. The FtpServer also performed these tests successfully.

4. The same Ingest and STMGT code was also exercised in the tunneling testing (See the CCR for TE_6A.04_Tunneling.01). For this patch this test was run in the EDF (no firewall in place) but with the 6A04 (Firewall) baseline code. The tunneling tests were performed with the new tunneling parameters set to EMPTY or blank as described in the install instructions.